

PUBLIC HEALTH REPORTS

VOL. 52

OCTOBER 29, 1937

NO. 44

PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES

September 12–October 9, 1937

The accompanying tables summarize the prevalence of eight important communicable diseases based on weekly telegraphic reports from State health departments. The reports from each State are published in the PUBLIC HEALTH REPORTS under the section "Prevalence of Disease." Table 1 gives the number of cases of poliomyelitis reported by each State in recent weeks of 1937 and in corresponding weeks of 1936, 1935, and 1934, and table 2 gives the number of cases of eight important communicable diseases, including poliomyelitis, for the 4-week period ending October 9, the number reported for the corresponding period in 1936, and the median number for the years 1932–36.

DISEASES ABOVE MEDIAN PREVALENCE

Poliomyelitis.—The peak of the current epidemic-like wave of poliomyelitis was apparently reached during the week ended September 18, and by the last week of the period under consideration (week ended Oct. 9) the incidence had dropped about 55 percent. Later reports for the week ended October 16 indicate a still further decline in practically all regions.

Compared with recent years the incidence for the current 4-week period (2,615 cases) for the country as a whole was approximately two and one-half times that for the corresponding period in 1936, 1934, and 1932, and double the incidence in 1933. In 1935 an unusual incidence of the disease was recorded for the regions along the Atlantic coast, and a total of 2,528 cases was reported for this period.

Although reports for the current 4 weeks show that poliomyelitis is on the decline, the number of cases in the West South Central region was more than 11 times that for the corresponding period in 1936 and 1935 and more than 7 times the incidence in 1934. The North Central and North Atlantic regions also continued to report a high incidence, and the incidence was somewhat above the seasonal expectancy in some States in the Mountain and Pacific regions. The East South Central and South Atlantic regions reported fewer cases than last year, but in both regions the current incidence was higher than the average for recent years. The slight epidemic of

1936 was confined mostly to the East South Central region. Table 1 shows for each State the number of cases reported since the beginning of the current year, with comparative data for the corresponding period in the 3 preceding years. It includes also the weekly number in each State for recent weeks of 1937.

TABLE 1.—*Poliomyelitis cases reported in each State during recent weeks of 1937*¹

Division and State	41 weeks ended—				Cases reported in 1937 for week ended—											
	Oct. 13, 1934	Oct. 12, 1935	Oct. 10, 1936	Oct. 16, 1937	Aug. 14	Aug. 21	Aug. 28	Sept. 4	Sept. 11	Sept. 18	Sept. 25	Oct. 2	Oct. 9	Oct. 16		
All States ²	6,292	9,296	8,111	8,449	455	492	622	641	817	879	730	608	408	396		
New England:																
Maine.....	15	119	35	125	8	6	8	19	12	16	6	8	10	8		
New Hampshire.....	8	52	8	21	1	1	5	4	0	1	1	0	2	2		
Vermont.....	8	33	9	26	2	3	5	0	1	6	3	2	2	0		
Massachusetts.....	66	1,940	60	347	25	41	51	44	44	41	21	16	7	5		
Rhode Island.....	1	304	2	14	2	0	1	3	0	4	2	0	0	1		
Connecticut.....	14	351	12	96	3	6	7	10	13	16	11	8	6	7		
Middle Atlantic:																
New York.....	203	2,615	171	606	22	39	64	52	91	91	61	45	48	20		
New Jersey.....	62	416	26	144	6	14	8	10	13	21	21	12	9	10		
Pennsylvania.....	105	160	88	307	14	21	22	19	37	40	66	31	13	7		
East North Central:																
Ohio.....	221	89	190	524	45	22	50	31	66	59	28	40	7	13		
Indiana.....	48	30	39	138	8	12	7	11	18	10	10	8	4	3		
Illinois.....	176	201	433	743	32	54	46	106	130	81	66	72	37	16		
Michigan.....	185	550	96	417	24	21	31	34	49	57	63	44	26	13		
Wisconsin.....	89	56	35	252	10	6	13	23	19	45	44	34	15	26		
West North Central:																
Minnesota.....	67	58	22	267	5	10	14	18	30	52	53	28	17	20		
Iowa.....	26	44	47	204	8	7	14	16	26	35	31	18	13	11		
Missouri.....	29	30	36	339	16	13	29	25	36	47	33	20	20	10		
North Dakota.....	10	10	12	6	0	0	0	3	1	0	1	0	0	0		
South Dakota.....	35	7	10	26	0	1	0	5	4	3	6	2	1	0		
Nebraska.....	13	13	16	188	14	15	19	19	27	18	7	18	11	5		
Kansas.....	59	24	48	234	12	13	15	14	20	30	36	23	19	9		
South Atlantic:																
Delaware.....	3	5	1	8	0	0	1	0	5	0	1	0	0	0		
Maryland.....	20	87	24	81	13	5	7	6	11	7	9	7	2	2		
District of Columbia.....	8	78	7	26	1	3	3	4	0	2	6	2	1	2		
Virginia.....	62	661	47	57	4	1	2	1	3	5	4	1	1	2		
West Virginia.....	75	37	40	63	1	5	7	4	2	2	3	2	4	1		
North Carolina.....	82	634	39	95	6	5	4	8	1	4	1	2	3	3		
South Carolina.....	10	28	16	21	2	0	1	0	1	1	0	0	0	0		
Georgia.....	17	18	87	68	0	5	4	2	0	5	1	2	0	2		
Florida.....	14	15	27	30	2	3	1	2	4	1	2	0	2	1		
East South Central:																
Kentucky.....	97	273	56	121	2	4	4	8	4	4	5	2	0	1		
Tennessee.....	50	71	303	107	1	1	5	2	3	1	1	4	1	3		
Alabama.....	42	50	389	66	4	2	4	5	7	3	1	1	3	2		
Mississippi.....	20	12	110	278	11	11	8	10	10	4	9	8	10	8		
West South Central:																
Arkansas.....	11	21	9	316	19	10	7	6	12	9	12	12	7	3		
Louisiana.....	13	86	22	108	8	6	4	4	7	8	5	5	4	1		
Oklahoma.....	11	10	11	414	23	19	25	9	14	19	13	21	15	10		
Texas.....	102	64	33	615	45	51	34	36	21	33	17	26	29	21		
Mountain: ³																
Montana.....	285	5	15	26	1	3	1	3	1	4	4	3	0	2		
Idaho.....	115	1	13	11	0	0	0	1	0	0	2	1	2	0		
Wyoming.....	7	2	6	38	6	0	10	0	2	5	8	1	0	0		
Colorado.....	15	9	44	196	8	21	28	20	21	21	9	31	15	12		
New Mexico.....	16	6	18	20	2	1	1	0	1	3	1	0	0	2		
Arizona.....	102	15	5	19	0	0	2	1	2	3	0	0	0	2		
Utah.....	11	6	3	23	1	0	1	2	5	4	2	3	2	8		
Pacific:																
Washington.....	617	26	57	58	0	3	5	1	2	10	6	6	11	4		
Oregon.....	61	13	25	43	1	3	0	2	4	2	3	3	2	3		
California.....	3,080	662	282	525	36	25	44	38	37	46	35	30	17	26		

¹ A similar table appeared in the PUBLIC HEALTH REPORTS for Sept. 3, 1937, p. 1208, and Oct. 1, p. 1370.

² Exclusive of Nevada, from which State no report is received.

From the beginning of the current year through the week ended October 16 there have been approximately 8,450 cases of poliomyelitis reported. This number, with the exception of the incidence (9,296 cases) in 1935, is the highest recorded for any year since 1931, when the number of cases for the corresponding period totaled approximately 13,600. While the West South Central and North Central regions have been the most affected, the incidence in practically all sections of the country has been somewhat above the normal seasonal level. The incidence in the South Atlantic and South Central regions fell considerably below that of last year, owing to the fact that the minor outbreak of 1936 occurred in those regions.

Influenza.—During the current period the influenza incidence increased about 60 percent over that for the preceding 4-week period. The number of cases (1,955) was also about 60 percent greater than that for the corresponding period in 1936, although it was only slightly larger than the number reported in 1935. In the West North Central region the disease was less prevalent than at this time last year, but all other regions reported increases over last year's figures. An increase of this disease is expected at this season of the year; and while the current incidence is somewhat higher than in 1936, the number of cases, except in the West South Central States, compares very favorably with the average for recent years.

Smallpox.—The number of cases (232) of smallpox reported for the 4 weeks ended October 9 was the highest recorded for any corresponding period since 1931. The high incidence was confined mostly to certain States in the Far West and West Central regions. The West North Central region reported 60 for the current period as against 34 last year; the West South Central region, 21 as against none; and the Pacific region, 76 as against 7. States in those regions that reported more than the usual seasonal incidence were Washington, North Dakota, Montana, Oklahoma, and Idaho.

Measles.—The incidence of measles has been relatively high. The incidence during the current period (3,081 cases) was about 2.6 times that for this period in 1936 and almost 35 percent above the average level for the 5 preceding years. The disease was more prevalent than last year in all regions except the New England and Pacific, in which regions the incidence fell slightly below that of last year.

Meningococcus meningitis.—For the entire country the incidence of meningitis (212 cases) dropped about 10 percent from the high level of 1936 and 1935, but it still maintained a high position in relation to the years 1934, 1933, and 1932, when the numbers of cases reported for this period were 130, 135, and 179, respectively. Compared with last year the incidence was higher in the West North Central and West South Central regions, considerably lower in the South Atlantic and East South Central regions, and approximately the same

in other regions. The number of cases reported from the South Atlantic and South Central regions appeared to be somewhat above the preceding 5-year median but in all other regions the incidence was about normal for this season of the year.

TABLE 2.—Number of reported cases of 8 communicable diseases in the United States during the 4-week period Sept. 12–Oct. 9, 1937, the number for the corresponding period in 1936, and the median number of cases reported for the corresponding period 1932–36¹

Division	Diphtheria			Influenza ²			Measles ³			Meningococcus meningitis		
	Current period	1936	5-year median	Current period	1936	5-year median	Current period	1936	5-year median	Current period	1936	5-year median
United States ¹	2,849	2,248	3,821	1,955	1,225	1,807	3,061	1,183	2,306	212	237	179
New England.....	1	33	56	12	5	13	107	215	173	7	10	10
Middle Atlantic.....	200	157	301	65	55	54	1,083	302	523	45	44	44
East North Central.....	389	276	537	237	142	253	682	195	410	41	45	44
West North Central.....	160	107	364	123	148	154	189	65	158	22	8	17
South Atlantic.....	1,064	808	1,139	635	419	742	249	73	250	34	60	26
East South Central.....	485	453	819	163	65	138	195	49	83	25	45	19
West South Central.....	329	252	612	614	186	282	117	30	59	18	10	10
Mountain.....	98	45	75	101	82	62	319	84	98	7	7	6
Pacific.....	93	122	130	105	128	141	140	170	344	16	8	9
	Poliomyelitis			Scarlet fever			Smallpox			Typhoid fever		
United States ¹	2,615	1,027	1,072	7,431	5,215	8,277	232	123	123	2,211	2,340	2,885
New England.....	189	21	35	382	322	454	0	0	0	63	32	52
Middle Atlantic.....	458	77	557	1,125	966	1,326	0	0	0	322	269	362
East North Central.....	750	417	230	2,312	1,588	2,300	16	30	25	341	380	444
West North Central.....	550	87	59	1,098	456	831	60	34	19	210	166	205
South Atlantic.....	83	107	63	849	558	981	5	4	2	359	525	585
East South Central.....	57	149	41	442	393	676	7	8	2	233	302	461
West South Central.....	233	20	20	302	149	212	21	0	15	413	439	371
Mountain.....	124	53	17	425	271	298	47	40	12	180	138	184
Pacific.....	171	96	96	496	512	572	76	7	22	90	89	93

¹ 48 States. Nevada is excluded, and the District of Columbia is counted as a State in these reports.

² 44 States and New York City. The median is for the years 1933–36, only; the data for 1932 are not comparable.

³ 46 States. Mississippi and Georgia are not included.

DISEASES BELOW MEDIAN PREVALENCE

Typhoid fever.—The reported incidence of typhoid fever (2,211 cases) represents a low level in relation to recent years. Compared with last year the incidence was high in the New England, Middle Atlantic, West North Central, and Mountain regions, low in the South Atlantic, East North Central, and South Central regions, and approximately the same in the Pacific region.

Scarlet fever.—For the current 4-week period 7,431 cases of scarlet fever were reported, an increase of approximately 4,000 over the preceding 4-week period. All regions contributed to this increase. A comparison with recent years shows that the current incidence was about 40 percent in excess of that for the corresponding period in 1936, but it was considerably below the incidence in each of the 4 preceding

years, when the numbers of cases for this period totaled 8,277, 8,353, 8,107, and 8,293, respectively. Each region, except the Pacific, reported an increase over last year, but the largest increases occurred in the West North Central and West South Central regions.

Diphtheria.—The number of cases of diphtheria (2,849) reported for the current 4-week period was almost twice the number reported for the preceding 4 weeks. The number was also about 27 percent higher than that recorded for the corresponding period in 1936, but it was considerably lower than that for preceding years. In the New England region the current incidence was approximately the same as last year, and in the Pacific region the disease was less prevalent, but all other regions reported a higher incidence than last year, the increases ranging from 7 percent in the East South Central region to about 50 percent in the West North Central. While the current incidence was higher than in 1936 it remained well below the average level of the preceding 5 years in all regions except the Mountain.

MORTALITY, ALL CAUSES

The average mortality rate from all causes in large cities for the 4 weeks ended October 9, based on data received from the Bureau of the Census, was 10.4 per 1,000 inhabitants (annual basis). For the same period in 1936 and 1935 the rate was 10.0. An increase in the death rate is expected at this season of the year, but the current rate is considerably above the average rate of 9.9 per 1,000 for the years 1931–36. In 1930 the rate (10.4) for this period was the same as the current rate.

SICKNESS AMONG MALE INDUSTRIAL EMPLOYEES DURING THE SECOND QUARTER AND FIRST HALF OF 1937¹

By DEAN K. BRUNDAGE, *Senior Statistician, United States Public Health Service*²

SECOND QUARTER OF 1937

The frequency of cases of sickness and nonindustrial accidents causing absence from work for more than 1 week, as shown by the reports of a group of 25 companies employing approximately 184,000 males, was approximately the same during the second quarters of 1937 and 1936, the rates being, respectively, 88.2 and 89.0. While the respiratory diseases as a group showed a somewhat lower rate during the second quarter of 1937 than in the same quarter of the preceding year, the subgroups, diseases of the pharynx and tonsils, and "other respiratory diseases", disclosed higher rates. The rate of new cases of

¹ From the Division of Industrial Hygiene of the National Institute of Health, U. S. Public Health Service, Washington, D. C.

² With the assistance of Miss Elizabeth S. Frasier, Junior Statistician.

influenza during the second quarter of 1937 (9.4 cases per 1,000 males) shows a considerable improvement since the first quarter, when the high rate of 61.7 cases per 1,000 males was recorded.³ During the first half of 1937, the influenza rate was 34.4 cases per 1,000 males, or about 70 percent higher than for the like period of 1936, or the 5-year period, 1932-36.

The rate for the nonrespiratory diseases in the second quarter of 1937 was approximately the same as for the corresponding months of 1936. Rates in the second quarter of 1937 in excess of the rates for the same quarter of the preceding year were shown for diarrhea and enteritis, hernia, neurasthenia and the like, "other diseases of the nervous system", "other genito-urinary diseases", diseases of the skin, infectious and parasitic diseases, ill-defined and unknown causes, and "all other diseases." A decrease in incidence was recorded for diseases of the stomach, "other digestive diseases", the rheumatic group, and diseases of the heart and arteries, and nephritis.

FIRST HALF OF 1937

Notwithstanding the very unfavorable beginning in 1937, as shown by the frequency rate of sickness and nonindustrial accidents for the first quarter,³ the rate for the first half of 1937 was only about 15 percent above the rate for the first half of 1936, and 22 percent above the 5-year period 1932-36.

Practically no change was shown in the frequency of cases of non-industrial accidents during the first half of the three periods under comparison, namely, 1937, 1936, and 1932-36.

TABLE 1.—*Frequency of disability lasting 8 calendar days or longer in the second quarter of 1937 as compared with the same quarter of 1936, and in the first half of 1937 as compared with corresponding periods of preceding years (male morbidity experience of industrial companies which reported cases to the U. S. Public Health Service)*¹

Diseases and disease groups which caused disability (numbers in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1926)	Annual number of disabilities per 1,000 men				
	Second quarter of—		First half of—		
	1937	1936	1937	1936	1932-36
Sickness and nonindustrial injuries ²	88.2	89.0	117.1	101.3	96.1
Nonindustrial injuries.....	11.3	10.3	10.8	10.9	10.7
Sickness ²	76.9	78.7	106.3	90.4	85.4
Respiratory diseases.....	27.8	29.7	56.9	41.7	38.0
Bronchitis, acute and chronic (106).....	4.0	4.8	5.7	6.1	4.3
Diseases of the pharynx and tonsils (115a).....	6.2	5.0	6.1	5.2	5.3
Influenza and gripe (11).....	9.4	12.4	34.4	20.6	20.1
Pneumonia, all forms (107-109).....	2.7	2.7	3.6	3.8	2.7
Tuberculosis of the respiratory system (23).....	.8	.9	.8	.9	.9
Other respiratory diseases (104, 105, 110-114).....	4.7	3.9	6.8	5.1	4.7

See footnotes at end of table.

¹For the first quarter of 1937, see Pub. Health Rep., 52: 1169-1171 (August 27) 1937.

TABLE 1.—*Frequency of disability lasting 8 calendar days or longer in the second quarter of 1937 as compared with the same quarter of 1936, and in the first half of 1937 as compared with corresponding periods of preceding years (male morbidity experience of industrial companies which reported cases to the U. S. Public Health Service)*—Continued

Diseases and disease groups which caused disability (numbers in parentheses are disease title numbers from the International List of the Causes of Death, fourth revision, Paris, 1929)	Annual number of disabilities per 1,000 men				
	Second quarter of—		First half of—		
	1937	1936	1937	1936	1932-36
Nonrespiratory diseases	49.1	49.0	49.4	48.7	47.4
Diseases of the stomach, cancer excepted (117-118).....	3.7	4.2	3.8	3.9	3.7
Diarrhea and enteritis (120).....	1.4	1.2	1.2	1.2	1.0
Appendicitis (121).....	4.6	4.6	4.6	4.3	3.8
Hernia (122a).....	1.8	1.6	1.6	1.8	1.6
Other digestive diseases (115b, 116, 122b-129).....	2.1	3.1	2.4	3.0	3.1
Rheumatic group, total.....	9.6	10.9	9.7	10.5	11.0
Rheumatism, acute and chronic (56, 57).....	4.5	5.1	4.5	4.7	5.4
Diseases of the organs of locomotion (156b).....	3.2	3.3	2.9	3.4	3.2
Neuralgia, neuritis, sciatica (87a).....	1.9	2.5	2.3	2.4	2.4
Neurasthenia and the like (part of 87b).....	1.4	1.3	1.1	1.1	1.1
Other diseases of the nervous system (78-85, part of 87b).....	1.2	1.1	1.0	1.2	1.8
Diseases of the heart and arteries and nephritis (90-99, 102, 130-132).....	3.6	3.8	4.2	4.2	4.2
Other genito-urinary diseases (133-138).....	2.6	2.3	2.4	2.4	2.4
Diseases of the skin (151-153).....	2.9	2.4	3.0	2.4	2.4
Infectious and parasitic diseases (1-10, 12-22, 24-33, 36-44).....	3.9	2.9	3.9	3.2	3.0
Ill-defined and unknown causes (200).....	3.5	2.9	3.6	2.6	2.0
All other diseases (45-65, 68-77, 88, 89, 100, 101, 103, 154-153a, 157, 162).....	6.8	6.7	6.9	6.9	6.8
Average number of males covered in the record.....	184,364	150,248	178,529	146,661	143,566
Number of companies included.....	25	25	25	25	25

¹ In 1936 and 1937 the same companies are included. The rates for the first half of the years 1932-36 include 20 of these companies which employed an average of 114,734 men during these months or 79 percent of the 143,566 representing the sample population for the 5 years.

² Exclusive of disability from the venereal diseases and a few numerically unimportant causes of disability.

As usual, the respiratory diseases as a group showed greater variation in incidence than the nonrespiratory disease group. For diseases of the respiratory system, the 1937 rate (56.9 cases per 1,000 males) exceeded that for 1936 by 36 percent and the 5-year average by 49 percent. Diseases of the pharynx and tonsils, and "other respiratory diseases" occurred more frequently in the first half of 1937 than in the same part of either of the two earlier periods under consideration. The incidence of pneumonia has increased during the past 2 years. The rate for influenza based on the first 6 months of 1937 was approximately 70 percent above the corresponding frequency in 1936 as well as 1932-36. Of the respiratory diseases, tuberculosis alone in 1937 has thus far a favorable rate.

Among diseases of the digestive system, an increase was recorded for appendicitis. The rate in 1937 was 4.6 cases per 1,000 males as compared with 4.3 for 1936 and 3.8 for the period 1932-36.

For the three periods under comparison there was practically no change in the frequency of neuralgia, neuritis, and sciatica; neurasthenia and the like; diseases of the heart, arteries, and nephritis; "other

genito-urinary"; and "all other diseases." The rheumatic group of diseases decreased somewhat in the first 6 months of 1937 as compared with the previous years.

In 1937 the frequency of cases diagnosed as "ill-defined and unknown causes" showed an increase over the frequency in 1936 and that for 1932-36.

As stated in previous reports these data were obtained from establishments in various sections of the United States, the greater percentage of them being located north of the Ohio and Potomac Rivers and east of the Mississippi.

THE ASSOCIATION OF SCURVY WITH ORAL DISEASES

By F. C. CADY, *Dental Surgeon, United States Public Health Service*

The history (1) of scurvy is so dramatic and spectacular that it deserves some consideration in any discussion of the disease. Scurvy has played a prominent part in all wars from the campaigns of Caesar and the Crusades to the World War of 1914-18. Hippocrates refers to large numbers of men in the army who suffered from pain in the legs and gangrene of the gums. De Joinville, who accompanied the Crusaders in their invasion of Egypt under St. Louis in the middle of the thirteenth century, refers to the livid and spongy condition of the gums and describes how the barber-surgeons were forced to cut away the dead flesh from the teeth to enable the victims to masticate their food.

The colonists in the northern part of America were severely afflicted with scurvy, and the mortality was so high among the French during the rigorous Canadian winters that they frequently debated the wisdom of abandoning the settlement.

Coming to more recent times we find that scurvy occurred extensively during the Crimean War, the American Civil War, the Franco-Prussian War, and the Russo-Japanese War. A Civil War report lists 30,700 cases of scurvy, with 383 deaths. The besieged in Paris during the Franco-Prussian War, and those at Port Arthur during the Russo-Japanese War, are known to have suffered severely from this malady. In the World War scurvy was prevalent in the armies of the East. In Mesopotamia it is credited with being one of the decisive factors in the surrender of the British at Kut-el-amara.

The incidence of scurvy through the centuries has not been limited to the military forces. History records many outbreaks in prisons, asylums, poorhouses, and houses of correction. There is a long list of outbreaks of this disease at sea during the sailing-vessel days when voyages consumed long periods of time and fresh foods were not available. These outbreaks are recorded in history from Vasco

de Gama's voyage to the East Indies via the Cape of Good Hope in 1499 to a British Arctic expedition in 1877.

It is possible, and desirable, to recall here only a few of the more important outbreaks of this scourge. For those who wish further information on the history of scurvy, an excellent review may be found in Hirsh's Handbook of Geographical and Historical Pathology.

Clinically, scurvy is characterized chiefly by ecchymosis, extravasation, and edema of the lower extremities (caused by subperiosteal hemorrhage) and by hemorrhage of the investing soft tissues of the teeth. The degree of the symptoms varies with the severity of the disease. Hemorrhage is the striking manifestation of the disease, and may extend to the organs. Though not completely understood, it is thought by many authorities that the hemorrhage is due to a mechanical weakness of the walls of the capillaries, permitting the mechanical escape of blood. This has been substantiated by the capillary resistance test.

The etiology and symptomatology of scurvy are so well known that no discussion of these subjects will be given here. It is important, however, to emphasize the fact that the essential food element specific for this disease is contained in seasonable foodstuffs of comparatively high cost. Also the antiscorbutic vitamin C, or cevitamic acid, as it is now called, is the most sensitive and least stable of the important vitamins. It is highly sensitive to heat, oxidation, and drying. It is destroyed by ageing, particularly in an alkaline or neutral media. This accounts for its presence in canned tomato juice, which is acid.

The paucity of the antiscorbutic vitamin in ordinary low-priced foodstuffs and its sensitivity to heating, drying, and ageing explain the high incidence of scurvy in armies, on ships at sea, and in institutions which of necessity were required to use prepared foods, since fresh fruits and vegetables were expensive and perishable.

Although modern distribution and preservation of fresh foods have greatly reduced the incidence of severe cases of scurvy in a large part of the modern world, there is increasing evidence to support the conviction that there continues to exist a high rate of subclinical scurvy. This is most evident among the low-income groups.

It must be borne in mind that it takes from 4 to 6 months to produce a case of scurvy with definite clinical symptoms of hemorrhage. This is probably due to the fact that the vitamin C is stored in the body.

O'Hara and Hauck (2) demonstrated this by a chemical titration method of urinary analysis. In a number of test cases they showed that the amount of vitamin C necessary to restore the tissues to saturation after 1 month of low intake ranged from 2,200 to 2,800 milligrams.

In 1931, Abassy, Harris, Ray, and Marrack (3) also demonstrated vitamin C subnutrition by urinary analysis. They found that, when

the daily excretion of cevitamic acid falls to 10 to 15 milligrams, or when a test dose of 700 mg fails to give a urinary test response the next day, the diet is not providing sufficient vitamin C.

It is logical to believe that there are many people, particularly of the lower income groups, whose diet is below the minimal requirement of antiscorbutic foods. This condition, coupled with the fact that one of the early symptoms of the disease is spongy hemorrhagic gums, would lead one to associate subclinical scurvy with the high rate of gingivitis, stomatitis, and Vincent's infection.

Although sufficient reliable data are not at present available to prove this contention statistically, a well-controlled experiment and a few reports of sporadic outbreaks of oral diseases tend to support the hypothesis.

At the Moose Lodge Orphanage, Mooseheart, Ill., Hanke, in 1930, conducted a nutritional experiment on over 300 children over a period of 2 years (4). These children were examined and observed for 1 year on their regular diet, which was found to be adequate in respect to calories of protein, carbohydrate, and fat. At the end of the year, 60.9 percent had gingivitis ranging from mild to severe. At the beginning of the second year this same group was given 1 pint of orange juice and the juice of one lemon daily in addition to their regular diet. All other factors remained the same as those which existed during the control year. At the end of the second year all but 19 percent were found to be normal or greatly improved.

An epidemic of Vincent's infection in the San Luis Valley of Colorado, in 1935, also showed a significant relationship to a possible dietary deficiency (5). The San Luis Valley comprises five counties in southwestern Colorado located on a high plateau between two mountain ranges. The altitude is high, the winters are long, and the summers short. The climatic condition is not favorable to the production of fruits and vegetables, and a large percentage of the population is Mexican, of the peon class. Fresh foods are scarce and expensive. A mouth infection occurred among these people of such proportions that the Colorado State Health Department appealed to the Red Cross for assistance. The Red Cross, in cooperation with the Colorado State Dental Society, sent nurses and dentists into the valley to handle the situation. Out of 9,400 examinations, over 3,700 positive cases of Vincent's infection were diagnosed by combined clinical and microscopical examination—a morbidity rate of 40 percent.

The following is an interesting quotation from a report of this outbreak published in the *Journal of the American Dental Association* by the dentist in charge of the group: "Many were suffering from malnutrition resulting perhaps from lack of dairy products, fresh vegetables, and fruits. About 80 percent of the malnourished were affected. It

seems that a deficiency diet renders one more susceptible to Vincent's infection, and an adequate diet is a great aid in treatment."

McCollum (6), Howe (7), Mellanby (8), and others reported by McCollum (6) have produced definite lesions of the dental investing tissues in rats and monkeys with scorbutic diets which closely resembled the degenerative diseases of the human mouth. Conditions which I have found in recent years among the American Indians of the Southwest (9) were similar to those found in the San Luis Valley. Belding and Belding (10), Hanke (4), Kirkpatrick (11), and Penta (12) noted similar conditions in other groups. In fact, there is increasing evidence that the field for an ever increasing amount of oral disease has been prepared by our ancient and venerable enemy—scurvy.

SUMMARY

1. Epidemics of severe types of scurvy are preventable as the result of a better understanding of the disease and better distribution and preservation of the foods which contain the specific element for prevention.

2. Three important factors are largely responsible for the scarcity of the essential vitamin in the ordinary dietary; namely, instability to heat, drying, and oxidation.

3. The scarcity of foods containing vitamin C in certain seasons and in certain climates and the high cost of these foods support the contention that there probably are many people whose diet does not contain the minimum amount of vitamin C to maintain good health.

4. The high incidence of diseases of the dental investing tissues among the poor, and the fact that these conditions are allied so closely to the symptoms of scurvy lend credence to the opinion that there is an association between subclinical scurvy and gingivitis and Vincent's infection, and that some of these diseases may be superimposed as a secondary invader upon a subclinical gingival scurvy. This contention is supported by group studies and surveys of sections of the population whose diet is low in antiscorbutic foods.

5. There is need for careful epidemiological investigation of Vincent's infection, which has been on the increase since the depression. A careful study of dietary deficiency as it relates to this disease might reveal new factors in its etiology.

REFERENCES

- (1) Hess, A. F.: Scurvy, past and present. Lippincott. 1920.
- (2) O'Hara, P. A., and Hauck, H. M.: Storage of vitamin C by normal adults following period of low intake. *J. Nutrition*, 12: 413-427 (October 1936).
- (3) Abbasy, M. A., Harris, L. J., Ray, S. N., and Marrack, J. R.: Diagnosis of vitamin C subnutrition by urine analysis. *Lancet*, 2: 1399-1405 (Dec. 21, 1935).

- (4) Hanke, M. T.: Diet and dental health. Univ. of Chicago Press. 1934.
- (5) Goodrow, W. E.: Vincent's infection. J. Am. Dent. Assoc., 23: 2159-2163 (November 1936).
- (6) McCollum, E. V., and Simmonds, N.: A newer knowledge of nutrition, 4th ed., pp. 251-253. Macmillan. 1929.
- (7) Howe, P. R.: Effects of scorbutic diets upon teeth. Dental Cosmos, 62: 586-590 (1920).
- (8) Mellanby, M.: Diet and disease. Report Series No. 140, Med. Research Council, London, 1929.
- (9) Cady, F. C.: Indian Dental Service. J. Am. Dent. Assoc., 21: 1099-1104 (June 1934).
- (10) Belding, P. H., and Belding, L. J.: Specific gingivitis. J. Am. Dent. Assoc., 19: 1995-1997 (November 1932).
- (11) Kirkpatrick, R. M.: Diet in relation to gingivitis; field observations in New Guinea. J. Am. Dent. Assoc., 24: 197-206 (February 1937).
- (12) Penta, A. Q.: The oral spirochetes and associated anaerobes in pyorrhea and pulmonary suppuration. J. Dist. Col. Dent. Soc., 11: 5-12 (July 1937).

KENTUCKY'S PLAN FOR PUBLIC HEALTH EDUCATION

By A. T. McCORMACK, M. D., *State Commissioner of Health*, and REBA F. HARRIS, M. A., *Associate Director, Bureau of Public Health Education, Kentucky State Department of Health*

Since approximately 70 percent of all public health work has its basis in education, it becomes imperative that more time and thought be given to a well-organized plan of public health education. Social Security funds have enabled the Kentucky State Department of Health to set up such a functioning plan.

This plan is based on the point of view that public health is concerned not only with saving lives of human beings, but also with guiding them to learn how to live healthfully and effectively in their daily environments. This guidance becomes more effective with the understanding of the facts that specific health problems arise within certain age groupings, and that health hazards exist under certain environmental conditions. In the infant and preschool period of life, for example, enteritis takes its greatest toll. From the public health approach, it is not only that the disease be attacked, but attention must be given to the guidance of parents as they react to the child and the family in the varied environments in which they live. Such consideration will aid the parents to lead the child safely through this health hazard. Education is the key to this guidance.

Kentucky's new plan of public health education, therefore, is based not upon artificial publicity devices, but upon a better understanding of the health needs of human beings in the various age groupings as they react to each other within the respective environments in which they live. This will be recognized as the ecological approach to public health education.

The first step toward the application of this approach is an efficient corps of public health workers who render all services in an educative way; for, whether it be through emotional appeal or reasoning, the activity or procedure in itself provides the greatest possibility for catching the attention and thereby places the individual or group in a receptive frame of mind for the operation of the learning processes. In other words, a community of both adults and children will understand more readily the values of a safe milk supply if facts concerning its own present supply, and the inherent dangers, are presented for study and discussion at the time the community leaders are planning changes or improvements in such supply. The public health leaders, themselves, must continue to learn about the newer scientific facts concerning a community's milk supply and understand how to interpret its values to individuals and groups. A parent will understand more readily the value of protecting his child from tuberculosis if someone presents to him, in language he can understand, facts concerning the disease, when the examinations and tests for tuberculosis are being given to his child. The person who renders this service must continue to learn the newer information concerning tuberculosis and be able to interpret this information to the parent and child.

That the activities and procedures involved in the generalized program of public health in Kentucky may become forces for education in the lives of her people, the Kentucky plan for public health education, cooperatively formulated by all members of the State Department of Health staff, begins with the continued learning, or in-service education, by the two major groups of people who are actively engaged in public health work: namely, (1) The administrative and staff members of the State Department of Health, and (2) personnel of the cooperating county and city health departments.

Through these two major coordinated groups, the plan extends to the leaders of the organized forces for social betterment and to the public in general within the State and various local communities; for it is that group of workers—public health physicians, public health nurses and sanitary instructors—who are charged with the responsibility of bringing to a greater number of leaders in all phases of social betterment—health, welfare, education, religion, social economics, as well as farm and labor organizations, women's clubs, and bar associations—a better understanding of the values of public health protection.

THE FUNCTIONING PLAN

Three committees, appointed from the staff members of the State department of health by the State health commissioner, have set up procedures for a functioning plan of continued learning by the personnel of the above-named groups. The committees and their functions are as follows:

COMMITTEE ON CONTINUED LEARNING BY STATE STAFF

The functions of this committee are to—

1. Map out plans, to be given to all staff members, for an annual program of weekly staff conferences. That these conferences may be of educational value, the program is based on the major problems which will be undertaken during the year by the State Department of Health and cooperating county health units. A period of 1 month is assigned to each bureau director. The program for each meeting is formulated around the following general statements concerning the topic or problem for discussion:

- (a) State specifically the problem to be presented to the group.
- (b) Give, briefly, any new scientific facts in relation to the cause, diagnosis, prevention and treatment of this specific problem. Suggest, in connection with these facts, any reading references which may be helpful to staff members.
- (c) Give, briefly, the administrative plan for attacking this problem throughout the State by—
The State department personnel;
County health unit personnel.
- (d) Indicate what records and reports, which apply to this problem, are being kept by local and State personnel.
- (e) Explain the plan for educational work concerning this problem that has been set up with the professional public health workers and with allied groups.

The remainder of the meeting is devoted to group discussions and reports of how staff members of other bureaus may participate in any or all phases of the work to carry forward the plan under consideration.

Further functions of this committee on continued learning by State staff are as follows:

2. Organize and set up plans for the use of a professional reference library within the State office building. The nucleus for this library is the best books and pamphlets on all phases of medical science, maternal hygiene, child care, public health nursing, sanitation, etc., which are now located in the various offices of staff members. For additional publications, each member of the staff has agreed to con-

tribute to this library at least one reference book per year, and subscribe to at least one professional periodical, which shall be bound by the State and kept for permanent reference.

3. Organize plans for instructing adequately the visiting public health students, and other out-of-the-State visitors, as to public health administration in Kentucky.

4. Set up policies for State staff members' attendance and reports of meetings of national professional organizations.

COMMITTEE ON CONTINUED LEARNING BY COUNTY UNIT PERSONNEL

The functions of this committee are to—

1. Set up policies, and organize, on an annual basis, plans for the meetings of the eight district public health study groups, which meet every 2 months. When mapping out the annual plan, this committee meets with the program chairman of each district and sets up for the year's study three or four outstanding issues, based on age groupings, which shall be undertaken throughout the year by the State and local departments. The program committee of each individual district then builds its annual program around these major groupings, using the members of its own district conference group. The following general policy governs the organization of the 1-day programs for each meeting.

For two hours in the morning, the general meeting, composed of health officers, public health nurses, and sanitary instructors, is devoted largely to three aspects of the problem under discussion, namely,

- Newer scientific information;
- Records for the evaluation of results;
- Public health education aspects.

The afternoon session is divided into three round-table group discussions—health officers, public health nurses, and sanitary instructors. For each of these round tables, a permanent chairman from the State staff is appointed to serve for a year. The round-table groups are organized in advance on the "group-study" plan, and the topics for study and discussion are based on the issue of the general morning meeting.

A mimeographed plan, containing the list of major problems selected for general meetings and group discussions, a statement of policies concerning program making, and the outlined program of each district, together with designated round-table group leaders, is made available to all State and county staff members.

Further functions of the committee on continued learning by county unit personnel are as follows:

2. Organize, on an educational basis, the annual school for health officers, which is held each spring in Louisville.

3. Organize and direct plans for educational scholarships from the Rockefeller Foundation and the Social Security funds for the continued study of health officers, public health nurses, and sanitary instructors.

4. Serve in an advisory capacity to the State university on problems concerning the school of public health.
5. Stimulate and encourage each county health officer to continue staff conferences and set up professional reference libraries within each county health department.

COMMITTEE ON CONTINUED LEARNING BY THE ALLIED GROUPS

The third committee of State department of health staff members works with State leaders of organized allied groups, such as—

Those actively engaged in the field of medical science—private practicing physicians, dentists, nurses.

Those actively engaged in general education—educational leaders, university and college administrators and instructors—public-school administrators.

Those actively engaged in social-welfare work—State leaders in social work.

Those actively engaged in the governmental and economic phases of human welfare—the executive, legislative, and judicial bodies.

Those actively engaged in religious work—ministerial groups—educational leaders.

Those actively engaged voluntarily in civic leadership—civic clubs, parent-teacher associations, farm bureaus, labor organizations and women's clubs.

The functions of this committee are to:

1. Meet with leaders of the various groups and organizations, as the needs arise, to map out plans for encouraging their personnel to study certain phases of public health which may have a direct relation to their work.
2. Make plans for the members in the various groups to publish timely articles on some phase of public health in the house organs or professional publications of their respective groups.
3. Provide leaders for local study groups and speakers for general State meetings.
4. Check all printed matter issued by the State department of health as to its scientific accuracy.
5. Recommend, to groups requesting it, authentic public health reference books for their professional libraries.

Each of the above-named committees works out, on an annual basis, specific plans for each of its functions. These plans are mimeographed and made available to all members of the State staff and to all other groups immediately concerned.

Each committee keeps a progress report of all activities, with an annual evaluation of results accomplished. Such reports are submitted to the State commissioner of health and made available to all staff members.

Each year the plan, with the progress reports of all committees, will be studied by the State commissioner of health and all staff members, and changes made to meet the existing needs.

With the State plan as a nucleus, each of the cooperating county and city health departments will be guided to develop, within their respective areas, a functioning plan of public health education, based on services rendered, to meet the health needs of their communities.

SUMMARY AND EVALUATION OF RESULTS TO DATE

This State-wide plan for public health education, based upon the health needs of the various age groups, and built around the in-service education of the leaders in public health and social betterment, has been in operation in Kentucky for less than 6 months. Of the three committees, the committee on continued learning by county unit personnel is actually functioning. Under the leadership of this committee, the 8 district public health study groups have been meeting regularly. In each of these groups there is marked evidence of growing interest in the general discussions. Papers presented show increased study and reading. A greater variety in ways of presenting the topic is shown through the use of graphs, demonstrations, and visual aids. Round table discussions show an expanding interest in the problems, and a desire on the part of all members for further study and discussion.

The other two committees involved in the plan are collecting data to be used as the basis for their functions.

Since the plan is a flexible one, changes will be made, as experience may indicate, to meet changing situations.

VACCINATION AGAINST BUBONIC PLAGUE IN MADAGASCAR

A recently published report¹ indicates that a vaccine (E. V.) prepared by the Pasteur Institute of Tananarive has been found efficacious in the campaign against bubonic plague in Madagascar. It is stated that the number of cases of plague reported has been reduced during the 3-year vaccination campaign by more than 50 percent, the annual number of cases dropping from 3,605 to 1,376. In 1933, the first year in which the new vaccine was used, 12,000 injections were given, while over 600,000 were reported in the 1936-37 campaign. In certain cantons, 85 to 90 percent of the inhabitants were vaccinated. It is reported that the number stricken with the disease was 5 to 10 times greater in unvaccinated persons than in those vaccinated.

¹ La Journée Industrielle, Sept. 29, 1937.

DEATHS DURING WEEK ENDED OCT. 9, 1937

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Oct. 9, 1937	Correspond- ing week, 1936
Data from 86 large cities of the United States:		
Total deaths.....	7,928	7,885
Average for 3 prior years.....	7,216	
Total deaths, first 40 weeks of year.....	346,661	346,420
Deaths under 1 year of age.....	465	619
Average for 3 prior years.....	508	
Deaths under 1 year of age, first 40 weeks of year.....	22,300	22,307
Data from industrial insurance companies:		
Policies in force.....	69,936,909	68,555,395
Number of death claims.....	11,764	10,839
Death claims per 1,000 policies in force, annual rate.....	8.8	8.1
Death claims per 1,000 policies, first 40 weeks of year, annual rate.....	9.9	9.9

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

In these and the following tables a zero (0) is to be interpreted to mean that no cases or deaths occurred, while leaders (.....) indicate that cases or deaths may have occurred, although none was reported.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 16, 1937. and Oct. 17, 1936

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936
New England States:								
Maine.....		3		1	12		1	0
New Hampshire.....					15	2	0	0
Vermont.....	6				5		0	0
Massachusetts.....	1	2			20	68	2	1
Rhode Island.....	1	1			2	1	0	1
Connecticut.....	7	2		3	2	8	1	1
Middle Atlantic States:								
New York.....	21	17	18	113	141	55	8	8
New Jersey.....	9	17	8	10	62	33	0	0
Pennsylvania.....	30	24			341	26	3	4
East North Central States:								
Ohio.....	65	45	22	29	222	8	4	7
Indiana.....	18	40	26	22	18	1	2	5
Illinois.....	35	24	1	10	69	11	5	2
Michigan.....	33	5	2	2	26	19	2	1
Wisconsin.....	8	6	25	27	21	10	0	0
West North Central States:								
Minnesota.....	11	13	1	4	2	10	0	3
Iowa.....	1	7				3	0	2
Missouri.....	43	29	39	77	57	1	1	1
North Dakota.....	1		1			1	0	0
South Dakota.....		1				1	0	1
Nebraska.....	3	4			4	1	0	1
Kansas.....	5	7	2		4	1	0	0
South Atlantic States:								
Delaware.....	2						0	0
Maryland ¹	7	21	10	10	3	4	3	2
District of Columbia.....	6	6	1		1	3	2	0
Virginia.....	61	38			20	6	5	9
West Virginia.....	35	40	10	19	25		2	0
North Carolina ^{2 4}	125	149	6	4	60	7	1	1
South Carolina.....	24	5	114	98	6	1	1	0
Georgia ⁴	48	54					3	1
Florida.....	19	3		3	7		1	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 16, 1937, and Oct. 17, 1936—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936
East South Central States:								
Kentucky.....	26	27	1	9	40	3	1	2
Tennessee.....	26	65	22	18	30	3	3	2
Alabama.....	43	35	23	26	3		2	2
Mississippi.....	14	22					1	0
West South Central States:								
Arkansas.....	38	8	20	27			0	0
Louisiana.....	23	20	10	6		3	0	1
Oklahoma.....	24	10	14	49	3	8	0	0
Texas.....	58	57	210	123	18	3	1	2
Mountain States:								
Montana.....		1	26	37	22	1	0	0
Idaho.....	4		8	1	7	67	0	0
Wyoming.....					3	1	1	0
Colorado.....	6	8			13	2	0	2
New Mexico.....	2	8		4	14	21	0	0
Arizona.....	5	7		34	2		0	2
Utah.....	3	1	1		48	1	0	0
Pacific States:								
Washington.....	1		1		6	5	0	0
Oregon.....		2	13	20	4	7	0	0
California.....	34	49	24	14	28	16	1	3
Total.....	932	883	649	705	1,376	422	57	67
First 41 weeks of year.....	18,651	19,321	278,058	142,935	247,694	270,090	4,605	6,346

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers	
	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936
New England States:								
Maine.....	8	1	8	15	0	0	9	0
New Hampshire.....	2	1	2	7	0	0	0	0
Vermont.....	0	0		2	0	0	0	0
Massachusetts.....	5	2	65	72	0	0	1	4
Rhode Island.....	1	0	9	17	0	0	0	0
Connecticut.....	7	1	23	15	0	0	0	1
Middle Atlantic States:								
New York.....	20	14	139	163	0	0	22	25
New Jersey.....	10	0	35	34	0	0	3	3
Pennsylvania.....	7	8	165	177	0	0	27	43
East North Central States:								
Ohio.....	18	45	333	185	2	0	22	16
Indiana.....	3	3	122	69	2	1	3	1
Illinois.....	16	53	192	177	4	1	24	7
Michigan.....	13	11	260	164	0	0	13	14
Wisconsin.....	26	3	84	126	1	1	1	1
West North Central States:								
Minnesota.....	20	2	46	45	0	10	0	0
Iowa.....	11	7	63	66	3	8	10	4
Missouri.....	10	8	153	57	1	0	26	23
North Dakota.....	0	4	26	19	2	11	1	3
South Dakota.....	0	0	14	21	0	2	1	1
Nebraska.....	5	1	9	24	0	1	1	0
Kansas.....	9	1	89	40	1	3	4	2
South Atlantic States:								
Delaware.....	0	0	11	4	0	0	1	1
Maryland.....	2	3	27	39	0	0	4	9
District of Columbia.....	2	0	8	6	0	0	1	0
Virginia.....	2	1	85	21	0	0	13	24
West Virginia.....	1	8	84	80	0	0	9	14
North Carolina.....	3	2	80	88	1	0	6	9
South Carolina.....	0	5	10	9	0	0	11	6
Georgia.....	2	9	29	15	0	0	11	28
Florida.....	1	3	9	2	0	0	8	1

See footnote at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Oct. 16, 1937, and Oct. 17, 1936—Continued

Division and State	Pollomyelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers	
	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936	Week ended Oct. 16, 1937	Week ended Oct. 17, 1936
East South Central States:								
Kentucky.....	1	4	55	53	1	0	20	26
Tennessee.....	3	8	38	65	12	0	24	14
Alabama ¹	2	5	15	33	8	0	5	18
Mississippi ²	8	4	13	18	9	0	5	7
West South Central States:								
Arkansas.....	3	9	15	6	0	0	11	7
Louisiana ⁴	1	1	8	9	0	0	7	16
Oklahoma ⁴	10	0	40	5	0	0	27	26
Texas ⁴	21	1	53	20	0	0	41	15
Mountain States:								
Montana.....	2	0	9	33	13	31	12	2
Idaho.....	0	3	19	37	5	2	4	1
Wyoming.....	0	0	5	6	0	1	1	0
Colorado.....	12	1	16	16	0	5	3	1
New Mexico.....	2	2	11	14	0	0	14	16
Arizona.....	2	0	5	7	1	0	3	4
Utah ¹	3	0	38	13	0	0	0	0
Pacific States:								
Washington.....	4	0	30	39	6	1	2	6
Oregon.....	3	4	25	15	8	0	0	4
California ⁴	25	13	123	149	2	0	9	9
Total.....	306	246	2,668	2,277	82	78	415	412
First 41 weeks of year.....	8,433	3,337	177,590	189,906	8,456	6,224	12,636	11,749

¹ New York City only.

² Week ended earlier than Saturday.

³ Rocky Mountain spotted fever, week ended Oct. 16, 1937, North Carolina, 1 case.

⁴ Typhus fever, week ended Oct. 16, 1937, 48 cases, as follows: North Carolina, 2; Georgia, 21; Alabama, 13; Louisiana, 2; Texas, 9; California, 1.

⁵ Figures for 1936 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Menin- gococ- cus menin- gitis	Diph- theria	Influ- enza	Mala- ria	Meas- les	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>1937</i>										
New Hampshire:										
January.....	0	1	21	-----	-----	-----	0	57	0	0
February.....	0	1	57	-----	-----	-----	0	56	0	0
March.....	0	1	1	-----	-----	-----	0	88	0	-----
April.....	0	-----	-----	-----	-----	-----	0	52	0	0
May.....	0	-----	-----	-----	-----	-----	0	66	0	1
June.....	0	-----	-----	-----	-----	-----	0	35	0	3
<i>September 1937</i>										
Alabama.....	7	116	28	839	9	15	15	63	2	47
Idaho.....	-----	4	2	-----	4	-----	3	30	15	10
Iowa.....	2	8	6	2	7	-----	118	133	8	20
New Jersey.....	4	36	27	7	71	-----	68	103	-----	47
New Mexico.....	0	14	2	6	18	1	5	23	0	61
North Carolina.....	7	357	2	313	94	45	12	194	1	64
Wyoming.....	-----	1	-----	-----	9	-----	16	27	1	4

September 1937		September 1937—Continued		September 1937—Continued	
Anthrax:	Cases	German measles—Contd.	Cases	Tetanus:	Cases
Iowa.....	4	North Carolina.....	7	Alabama.....	4
Chicken pox:		Wyoming.....	3	New Jersey.....	1
Alabama.....	4	Mumps:		Trachoma:	
Idaho.....	9	Alabama.....	30	Idaho.....	8
New Jersey.....	11	Idaho.....	7	New Jersey.....	2
Iowa.....	73	Iowa.....	27	Trichinosis:	
New Mexico.....	8	New Jersey.....	106	New Jersey.....	1
North Carolina.....	14	New Mexico.....	4	Tularaemia:	
Wyoming.....	8	Wyoming.....	12	Alabama.....	2
Conjunctivitis:		Ophthalmia neonatorum:		New Mexico.....	1
Idaho.....	1	New Jersey.....	16	Typhus fever:	
New Mexico.....	3	North Carolina.....	2	Alabama.....	76
Dysentery:		Paratyphoid fever:		North Carolina.....	4
Alabama (amoebic)....	1	New Jersey.....	1	Undulant fever:	
Iowa (bacillary).....	3	New Mexico.....	2	Alabama.....	3
New Jersey (amoebic)...	2	North Carolina.....	2	Iowa.....	11
New Mexico (amoebic)...	3	Puerperal septicemia:		New Jersey.....	2
New Mexico (bacillary)	114	New Mexico.....	2	North Carolina.....	4
New Mexico (unspeci-		Rabies in animals:		Wyoming.....	1
fied).....	48	Alabama.....	75	Vincent's infection:	
North Carolina (bacil-		New Jersey.....	6	Idaho.....	1
lary).....	8	Rocky Mountain spotted		Whooping cough:	
Encephalitis, epidemic or		fever:		Alabama.....	95
lethargic:		New Jersey.....	1	Idaho.....	55
Alabama.....	2	North Carolina.....	3	Iowa.....	161
Iowa.....	6	Septic sore throat:		New Jersey.....	330
German measles:		Idaho.....	5	New Mexico.....	59
Alabama.....	2	Iowa.....	1	North Carolina.....	483
Idaho.....	4	New Mexico.....	4	Wyoming.....	83
Iowa.....	2	North Carolina.....	12		
New Jersey.....	26	Wyoming.....	5		

PLAGUE INFECTION IN CALIFORNIA

Dr. W. M. Dickie, director of public health of California, under dates of October 7 and October 14, 1937, stated that plague infection had been demonstrated in pools of fleas and in pooled tissue and organs taken from rodents in California as follows:

Fresno County.—A pool of 111 fleas from 27 *fisheri* squirrels, 84 fleas from 151 golden mantled squirrels, 48 fleas from 139 chipmunks, and 27 fleas from 10 chickaree (red) squirrels, received at the State department of health laboratory on September 21; a pool of 48 fleas from 139 chipmunks and 11 fleas from 17 chipmunks collected on September 20; a pool of organs from 3 *beecheyi* squirrels shot on September 14; and a pool of organs from 9 golden mantled squirrels collected October 2.

Placer County.—Pooled tissue from 7 *beecheyi* squirrels, 5 chipmunks, 2 wood rats, 2 *alexandrinus* rats, and 3 golden mantled squirrels received at the laboratory on October 1.

WEEKLY REPORTS FROM CITIES

City reports for week ended Oct. 9, 1937

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.

State and city	Diph- theria cases	Influenza		Meas- les cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	232	109	22	123	376	645	6	349	79	815	-----
Current week ¹	136	53	13	272	422	595	2	316	57	776	-----
Maine:											
Portland	0		0	0	0	0	0	1	0	5	19
New Hampshire:											
Concord	0		0	6	0	0	0	0	0	0	7
Manchester	0		0	0	3	0	0	1	0	0	19
Nashua	0			0		0	0		0	0	8
Vermont:											
Barre	0		0	4	2	1	0	0	0	0	5
Burlington	0		0	0	0	1	0	0	0	0	6
Rutland	0		0	0	1	0	0	0	0	1	6
Massachusetts:											
Boston	0		0	6	17	17	0	7	2	12	190
Fall River	1		0	0	2	0	0	3	0	14	25
Springfield	0		0	0	2	3	0	1	0	15	23
Worcester	0		0	0	5	0	0	1	0	0	44
Rhode Island:											
Pawtucket	0		0	0	0	2	0	0	0	0	11
Providence	0	1	0	0	3	6	0	3	0	15	61
Connecticut:											
Bridgeport	0		0	0	2	1	0	1	0	0	22
Hartford	2		0	0	2	4	0	1	1	1	39
New Haven	0		0	1	5	3	0	0	2	2	42
New York:											
Buffalo	1		0	3	14	6	0	0	0	10	127
New York	24	10	3	13	65	30	0	78	15	130	1,403
Rochester	0	2	0	1	7	0	0	2	0	5	72
Syracuse	0		0	0	7	1	0	1	0	16	49
New Jersey:											
Camden	1		0	0	3	1	0	0	1	0	38
Newark	0		0	1	4	4	0	5	1	13	97
Trenton	0		0	21	2	1	0	4	0	3	34
Pennsylvania:											
Philadelphia	8	3	1	5	22	33	0	19	6	44	452
Pittsburgh	0	4	0	42	19	21	0	7	0	18	162
Reading	0		0	1	2	0	0	0	0	0	26
Scranton	0			1		3	0		0	1	-----
Ohio:											
Cincinnati	4		0	3	9	20	0	9	2	19	135
Cleveland	0	3	0	31	19	30	0	9	0	28	199
Columbus	2	1	1	1	2	12	0	3	0	4	81
Toledo	0		0	0	5	9	0	2	4	15	62
Indiana:											
Anderson	0		0	0	2	5	0	0	0	5	8
Fort Wayne	0		0	0	3	0	0	3	0	0	22
Indianapolis	1		0	1	11	12	0	3	0	7	99
South Bend	0		0	0	4	1	0	0	0	0	18
Terre Haute	1		0	1	0	3	0	0	0	0	18
Illinois:											
Alton	0		0	6	0	2	0	0	0	0	8
Chicago	6	4	0	15	26	46	0	34	1	35	668
Elgin	0		0	0	3	1	0	0	0	0	11
Moline	0		0	0	1	1	0	0	0	3	14
Springfield	0		0	0	2	4	0	0	0	1	19
Michigan:											
Detroit	9	2	2	17	15	62	0	11	2	37	252
Flint	1		0	0	3	13	0	0	0	4	20
Grand Rapids	0		0	4	2	12	0	1	0	5	36
Wisconsin:											
Kenosha	0		0	0	0	1	0	0	0	0	10
Madison	0		0	0	0	2	0	0	0	0	19
Milwaukee	0		0	14	5	11	0	2	0	45	90
Racine	0		0	2	0	3	0	0	0	6	13
Superior	0		0	0	0	0	0	0	0	0	10

¹ Figures for Wilmington, N. C., Galveston, Tex., Boise, Idaho, and Los Angeles, Calif., estimated; reports not received.

City reports for week ended Oct. 9, 1937—Continued

State and city	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculois deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
	Cases	Deaths								
Minnesota:										
Duluth.....	0	1	0	0	1	0	3	0	9	26
Minneapolis.....	1	0	1	0	13	0	1	0	12	90
St. Paul.....	5	0	1	9	1	0	1	0	4	57
Iowa:										
Cedar Rapids.....	0		0		0	0		0	0	
Davenport.....	1		0		0	0		0	0	
Des Moines.....	0		0		2	0		0	0	34
Sioux City.....	0		0		6	0		0	11	
Waterloo.....	0		0		3	0		0	1	
Missouri:										
Kansas City.....	3	0	0	8	8	0	6	0	0	92
St. Joseph.....	0	0	0	2	5	0	1	0	0	30
St. Louis.....	5		45	3	40	1	3	1	8	177
North Dakota:										
Fargo.....	0	1	0	0	1	0	1	0	11	8
Grand Forks.....	0		0		2	0		0	0	
Minot.....	0	0	0	0	0	0	0	0	0	9
South Dakota:										
Aberdeen.....	0		0		0	0		0	1	
Sioux Falls.....	0	0	0	0	0	0	0	0	0	8
Nebraska:										
Omaha.....	0	0	0	5	1	0	0	0	0	61
Kansas:										
Lawrence.....	0	2	0	0	0	0	0	0	1	5
Topeka.....	0	0	0	0	2	0	0	1	1	10
Wichita.....	0	0	0	1	7	0	0	0	5	20
Delaware:										
Wilmington.....	0	0	2	2	0	0	0	0	0	26
Maryland:										
Baltimore.....	3	3	1	2	9	12	5	3	61	192
Cumberland.....	0	0	0	0	0	2	1	0	0	16
Frederick.....	0	0	0	0	0	0	0	0	0	2
District of Columbia:										
Washington.....	4	0	1	5	9	0	7	1	3	142
Virginia:										
Lynchburg.....	2	0	0	0	1	0	1	2	0	6
Norfolk.....	2	0	1	2	2	0	4	0	0	29
Richmond.....	0	1	0	6	4	0	1	0	0	53
Roanoke.....	2	0	0	1	2	0	0	0	3	16
West Virginia:										
Charleston.....	2	0	0	1	2	0	1	0	0	16
Huntington.....	2		0		4	0		0	0	
Wheeling.....	0	0	1	1	2	0	1	0	3	22
North Carolina:										
Gastonia.....	2		0		0	0		0	0	
Raleigh.....	0	0	0	0	0	0	0	0	3	8
Wilmington.....										
Winston-Salem.....	0	0	0	3	5	0	0	0	8	15
South Carolina:										
Charleston.....	0	4	0	6	2	0	1	1	0	33
Florence.....	0	0	0	0	0	0	0	0	0	14
Greenville.....	0	0	0	1	0	0	0	0	0	5
Georgia:										
Atlanta.....	6	6	0	1	0	17	1	1	0	71
Brunswick.....	0	0	0	1	0	0	0	0	0	3
Savannah.....	3	1	0	2	0	0	1	0	0	29
Florida:										
Miami.....	0	0	2	5	1	0	1	1	0	41
Tampa.....	1	0	0	2	0	0	0	0	0	25
Kentucky:										
Covington.....	1	0	0	5	1	0	0	0	0	19
Lexington.....	0	0	2	2	0	0	1	0	0	21
Louisville.....	6	2	0	6	17	0	1	1	8	54
Tennessee:										
Knoxville.....	2	0	0	8	6	0	8	0	0	37
Memphis.....	4	0	2	1	4	0	6	1	7	69
Nashville.....	2	0	0	4	2	0	8	1	0	44
Alabama:										
Birmingham.....	7	2	0	6	1	0	1	0	1	75
Mobile.....	1	0	0	2	1	0	1	0	0	19
Montgomery.....	1		0		0	0		0	0	
Arkansas:										
Fort Smith.....	0		0		0	0		0	0	
Little Rock.....	0	0	0	0	2	0	0	0	0	0

City reports for week ended Oct. 9, 1937—Continued

State and city	Diph- theria cases	Influenza		Mea- sles cases	Pneu- monia deaths	Scar- let fever cases	Small- pox cases	Tuber- culosis deaths	Ty- phoid fever cases	Whoop- ing cough cases	Deaths, all causes
		Cases	Deaths								
Louisiana:											
Lake Charles.....	0	-----	0	0	0	0	0	0	0	0	0
New Orleans.....	2	1	1	0	7	4	0	7	2	7	131
Shreveport.....	1	-----	0	0	5	2	0	1	1	0	42
Oklahoma:											
Muskogee.....	1	-----	-----	0	-----	1	0	-----	0	0	-----
Oklahoma City.....	0	-----	0	0	3	2	0	1	0	0	36
Tulsa.....	2	-----	-----	6	-----	5	0	-----	0	16	-----
Texas:											
Dallas.....	7	-----	0	1	3	4	0	5	2	4	64
Fert Worth.....	1	-----	0	0	2	6	0	1	0	4	27
Galveston.....	1	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Houston.....	3	1	0	1	3	6	0	5	2	4	74
San Antonio.....	1	-----	0	1	4	1	0	7	0	1	64
Montana:											
Billings.....	0	-----	0	0	1	0	0	0	0	0	6
Great Falls.....	0	-----	0	0	0	0	0	0	0	0	2
Helena.....	0	-----	0	0	0	1	0	0	0	15	4
Missoula.....	0	-----	0	0	1	0	0	0	0	0	15
Idaho:											
Boise.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Colorado:											
C o l o r a d o											
Springs.....	0	-----	0	0	0	0	0	0	0	0	8
Denver.....	1	-----	0	8	1	6	0	3	0	2	86
Pueblo.....	1	-----	0	0	0	0	1	0	0	2	10
New Mexico:											
Albuquerque.....	0	-----	0	4	0	2	0	3	0	0	12
Utah:											
Salt Lake City.....	0	-----	0	2	2	6	0	1	1	9	37
Washington:											
Seattle.....	2	-----	0	2	2	8	0	5	0	5	89
Spokane.....	0	-----	0	1	1	8	0	0	0	2	35
Tacoma.....	0	-----	0	0	1	2	0	0	0	10	25
Oregon:											
Portland.....	2	-----	1	3	2	1	0	2	0	2	90
Salem.....	0	1	-----	0	-----	0	0	-----	0	0	-----
California:											
Los Angeles.....	0	-----	0	0	3	0	0	2	0	13	24
Sacramento.....	0	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
San Francisco.....	1	1	0	1	9	4	0	8	1	27	148

City reports for week ended Oct. 9, 1937—Continued

State and city	Meningococcus meningitis		Polio- mye- litis cases	State and city	Meningococcus meningitis		Polio- mye- litis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				Nebraska:			
Boston.....	1	0	1	Omaha.....	0	0	3
Connecticut:				Kansas:			
Hartford.....	0	0	1	Topeka.....	0	0	1
New Haven.....	0	0	1	Maryland:			
New York:				Baltimore.....	1	0	2
Buffalo.....	2	1	0	District of Columbia:			
New York.....	2	0	13	Washington.....	0	0	1
Syracuse.....	0	0	1	South Carolina:			
New Jersey:				Charleston.....	0	0	1
Newark.....	0	0	1	Alabama:			
Pennsylvania:				Mobile.....	0	1	0
Philadelphia.....	1	0	3	Louisiana:			
Pittsburgh.....	0	0	1	New Orleans.....	0	0	4
Ohio:				Shreveport.....	0	2	0
Cincinnati.....	0	0	2	Oklahoma:			
Cleveland.....	1	0	2	Tulsa.....	0	0	1
Toledo.....	0	0	1	Texas:			
Indiana:				Fort Worth.....	0	0	3
South Bend.....	0	0	1	Dallas.....	0	0	2
Illinois:				Colorado:			
Chicago.....	0	0	8	Denver.....	0	0	2
Michigan:				Pueblo.....	0	0	4
Detroit.....	0	0	3	New Mexico:			
Flint.....	0	0	1	Albuquerque.....	0	1	0
Grand Rapids.....	1	0	1	Utah:			
Wisconsin:				Salt Lake City.....	1	1	0
Milwaukee.....	0	0	4	Washington:			
Racine.....	0	0	1	Seattle.....	0	0	1
Minnesota:				Spokane.....	0	0	1
Minneapolis.....	0	0	3	Tacoma.....	1	0	0
St. Paul.....	0	0	3	Oregon:			
Iowa:				Portland.....	0	0	1
Des Moines.....	0	0	3				
Missouri:							
Kansas City.....	0	0	4				
St. Louis.....	0	0	1				

1 2 nonparalytic cases included.

Encephalitis, epidemic or lethargic.—Cases: New York, 1; Trenton, 1; Indianapolis, 1; Sioux City, 1; St. Louis, 2; Louisville, 1; Seattle, 1; Portland, Oreg., 1.

Pellagra.—Cases: Chicago, 1; Winston-Salem, 1; Atlanta, 2; Birmingham, 1; Dallas, 1.

Typhus fever.—Cases: Atlanta, 3; Savannah, 2; Mobile, 1; Houston, 1. Deaths: Houston, 1.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—2 weeks ended September 25, 1937.—During the 2 weeks ended September 25, 1937, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis.....	1		1	2	3					7
Chicken pox.....				40	42	26	17	3	58	186
Diphtheria.....		5	3	114	22	4	4		3	155
Dysentery.....				3	25		19			47
Erysipelas.....				3	2					7
Influenza.....		10	1		15					30
Lethargic encephalitis.....	1				1					2
Measles.....		10	1	133	74	18	43	6	131	416
Mumps.....					52	5	6	2	11	76
Paratyphoid fever.....		1			6					7
Pneumonia.....	1			10			1		21	33
Polio-myelitis.....	1	6	50	40	541	85	130	28	4	885
Scarlet fever.....		6	17	101	96	21	41	13	27	322
Trachoma.....						1				2
Tuberculosis.....	2	11	20	139	81	1			19	273
Typhoid fever.....		5	21	120	20	4	34		6	210
Undulant fever.....					2	1				5
Whooping cough.....				269	202	85	36	5	27	624

NOTE.—No report was received from Alberta for the week ended Sept. 25, 1937.

JAMAICA

Communicable diseases—4 weeks ended October 2, 1937.—During the 4 weeks ended October 2, 1937, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island outside of Kingston, as follows:

Disease	Kingston	Other localities	Disease	Kingston	Other localities
Chicken pox.....		35	Puerperal sepsis.....		1
Diphtheria.....	1		Scarlet fever.....		2
Dysentery.....	4	2	Tuberculosis.....	85	87
Erysipelas.....		1	Typhoid fever.....	8	57
Leprosy.....		2			

VIRGIN ISLANDS

Notifiable diseases—July–September 1937.—During the months of July, August, and September 1937, cases of certain notifiable diseases were reported in the Virgin Islands as follows:

Disease	July	August	September	Disease	July	August	September
Chicken pox.....		1	1	Pneumonia.....	1	2	5
Dengue.....	8		3	Schistosomiasis.....		1	
Diphtheria.....	2			Sprue.....		1	
Gonorrhoea.....	6	15	7	Syphilis.....	8	17	18
Hookworm disease.....	4	6	3	Tetanus.....		1	
Leprosy.....	1		1	Tuberculosis.....	4	3	1
Malaria.....	42	16	9				

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

CHOLERA—Continued

[C indicates cases; D, deaths; P, present]

Place	Week ended—												
	July 1937					August 1937					September 1937		
	3	10	17	24	31	7	14	21	28	4	11	18	25
India—Continued.													
Punjab.....	C	1	2										
Rangoon.....	C	3	6	12	3	4	17	19	46	38	16	6	1
Sind State.....	C	3	6	12	3	4	17	19	46	38	16	6	1
Tuticcrin.....	C			2	10			1			1		
India (French):													
Chandernagor Territory.....	C	3	5	8	2	1	1						
Karikal Province.....	C	3											
Pondichery Province.....	C	3											
Indochina (see also table below): Cochinchina—													
Chaudoc.....	C	1											
Cholon Province.....	C	P											
Haiphong.....	C												
Tonkin Province.....	C												
Japan:													
Amagasaki ¹	C												
Hiroshima.....	C												
Kobe ²	C												
Okayama Prefecture ³	C												
Taku ⁴	C												
Tokuyama ⁵	C												
Tokyo ⁶	C												1
Philippine Islands: Manila.....	C												
Davao.....	D												
Siam:													
Bangkok.....	C	226	948	338	28	1	1	1					
Provinces.....	C	1,485	1,646	796	265	36	55	35	18	7	12	16	10
Straits Settlements: Penang.....	C				1								
On vessels:													
S. S. Kedah at Singapore from Penang.....	C												
S. S. Helias at Bangkok from Swatow.....	C												
Davao.....	D												
S. S. Kedah at Belawan-Dell.....	C												

¹ Cholera has also been reported in Japan as follows: Week ended Oct. 2, Amagasaki, 1 case; Kobe, 1 case. Week ended Oct. 9, Okayama Prefecture, 1 case; Taku, 3 cases; Tokuyama, 10 cases; Tokyo, 1 case.

Place	March 1937	April 1937	May 1937	June 1937	July 1937	August 1937	Place	March 1937	April 1937	May 1937	June 1937	July 1937	August 1937
Argentina:							Indochina (see also table above):						
Cordoba Province.....	C						Cambodia.....	1	4	4	4	2	
Mendoza Province.....	C				11 9		Cochinchina.....		57	45	23	2	
Salta Province.....	C				11 6	11 1	Madagascar (central region).....		57	43	22	25	
Santiago del Estero Provinces.....	C						Peru.....	28	9	12	4	7	3
Bolivia:							Cajamarca Department.....	1					
Chuquisaca Department.....	C	11 2					Huancaabamba Department.....		3				
La Paz Department.....	C		11 2				Huancabamba Department.....		1	1	1	1	2
Oruro Department.....	C	11 1					Lambayeque Department.....		4	3	2	4	1
Potosi Department.....	C	11 1					Litoral Department.....		4	3	2	3	1
Dahomey.....	C			1			Salaverry.....		1	2	1	2	
Ecuador (see also table above):							Lima Department.....	1		6			
Manabi.....	C	7	2				Piura Department.....	14					
Riaha.....	C		13				Union of South Africa (see also table above).....	3	1				
Manta.....	C												

* Plague infection proved in insect hosts as follows: *California*—Pleaser County, June 22-Aug. 31; San Bernardino County, July 12-Sept. 8; San Mateo County, July 1937. *Idaho*—Bannock County, July 8. *Nezada*—Douglas County, July 29-31; Ormsby County, July 2-Aug. 20. *Oregon*—Lake County, May 7; Wallowa County, June 25. *Utah*—Morgan County, reported Aug. 10. *Washington*—Adams County, Apr. 29, 1927.

† Week ended Oct. 9, plague infection proved in pooled tissue from squirrels, chipmunks, and rats from Lake Tahoe region, Pleaser County.

‡ Number unspecified.

§ Pneumonic plague.

On vessels:
 S. S. *Nagasaki Maru* at Nagasaki from Shanghai..... 1 case... Mar. 8, 1937
 S. S. *Kinanu* at Swatow from Bangkok..... 1 case... Mar. 13, 1937
 S. S. *Sumatra* at Calcutta..... 2 cases... Mar. 21, 1937
 S. S. *Englestan* at Rangoon from Chittagong..... 1 case... Mar. 25, 1937
 S. S. *Takima* at Hong Kong..... 1 case... Mar. 31, 1937
 S. S. *Dalmeida* at Hong Kong..... 1 case... Apr. 1, 1937
 S. S. *Jalapa* at Rangoon from Chittagong..... 1 case... Apr. 2, 1937
 S. S. *Takung* at Hong Kong..... 1 case... Apr. 13, 1937

On vessels—Continued.
 S. S. *President Hoover* at Yokohama from Honolulu..... 1 case... Apr. 17, 1937
 S. S. *Hydra* at Karachi at Singapore from Saigon..... 1 case... Apr. 24, 1937
 S. S. *G. Jaquiter* at Singapore from Saigon..... 1 case... May 7, 1937
 S. S. *Chang* at Thursday Island..... 1 case... May 26, 1937
 S. S. *Empress of Japan* at Kobe from Manila..... 1 case... June 11, 1937
 S. S. *Northern Prince* at New York from Rio de Janeiro..... 1 case... Aug. 19, 1937
 S. S. *Empress of Asia* at Honolulu..... 1 case... Sept. 3, 1937

Place	March 1937	April 1937	May 1937	June 1937	July 1937	August 1937
Angola.....	9					
Belgian Congo.....	283	143	287			
Bolivia.....	5	25	48			
China: Manchuria—Harbin.....	3	11	4		1	
Chosen.....	58	73	27			
Colombia (see also table above).....	42	89	51	108		
Dahomey.....	5	2				
France.....	1	1	1			
Guatemala.....						
Indochina (see also table above).....	505	316	274	273	143	226
Mexico (see also table above):	97	46	95	50	30	63
Aguascalientes State—Aguas-						
calientes.....		1	1			
Chihuahua State.....		1				
Colima State.....		4				
Jalisco State—Guadalajara.....		1		1		
Mexico—Continued.						
Mexico State.....						
Mexico, D. F.....		13	41	28	18	
Mexico City.....					3	
Nuevo Leon State—Monter-						
rey.....	3	1	10	8	1	
Queretaro State.....						
San Luis Potosi State—San		1				
Luis Potosi.....					1	
Yucatan State.....						
Morocco.....						
Nyasaland.....		6	1	1	4	
Portugal (see also table above).....		3				
Portugal.....	27	15	29			
Salvador.....	2	5	1			
Senegal.....		4				
Turkey.....		29	28	36		
Turkey.....		15	4	1		

* Imported.

YELLOW FEVER

[C indicates cases; D, deaths; P, present]

Place	Feb. 28- Mar. 27, 1937	Mar. 28- Apr. 24, 1937	Apr. 25- May 29, 1937	Week ended—														Oct. 2, 1937			
				June 1937			July 1937				August 1937			September 1937							
				5	12	19	26	3	10	17	24	31	7	14	21	28	4		11	18	25
Brazil:																					
Matto Grosso State ¹	C	4	2																		
Minas Geraes State ¹	D	3	4																		
Para State ¹	D	34	13																		
Riandy State.....	D	1	1																		
Esio Paulo State ¹	D	38	16																		
Colombia:																					
Boyaca Department.....	C		1																		
Caldas Department.....	D	1	3																		
Cundinamarca Department.....	D																				
Intendencia of Meta—Villavicencio	D	1	3																		
Santander Department.....	C		2																		
Dahomey: Bohicon.....	C				1																
French Equatorial Africa:																					
Bangui.....	D																				
Brazzaville.....	D	1																			
Fort Archambault.....	C																				
Libreville.....	C	1																			
Gold Coast ²	D	1	4																		
Accra.....	D	1	6		3		2	5	10												
Nuqa.....	D	1	4		6		3	2	4												
Ivory Coast:	C				1		1	1	1												
Agooville.....	C	1																			
Gaoula.....	C																				
Touba ⁴	D																				

¹ See also reports of yellow fever in Brazil on pp. 463, 536, 657, 683, 762, 818, 912, 1134, and 1248 of the PUBLIC HEALTH REPORTS.² Suspected.³ During the week ended Oct. 9, 1937, 1 case of yellow fever was reported in Asuboi, Gold Coast.⁴ For the week ended Oct. 9, 1937, 1 suspected case of yellow fever was reported in Touba, Ivory Coast.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER—Continued

[C indicates cases; D, deaths; P, present]

Place	Feb. 26-27, 1937	Mar. 28-Apr. 24, 1937	Apr. 25-May 20, 1937	Week ended—												Oct. 2, 1937							
				June 1937			July 1937			August 1937			September 1937										
				5	12	19	26	3	10	17	24	31	7	14	21		28	4	11	18	25		
Nigeria:																							
Aba.....																							
Abeokuta.....																							
Farafalos.....																							
Ibadan.....																							
Jos.....																							
Ogbomosho.....																							
Ovrim.....																							
Sapele.....																							
Paraguay.....																							
Peru: Perene region (Pampa Whaley).....																							
Senegal:																							
Bambey.....																							
Dakar.....																							
Diakhao.....																							
Dionhaon.....																							
Dourha.....																							
Gossas.....																							
Maalem Hodat.....																							
Ranleque.....																							
Tambo-Counda.....																							
Tiles Circite-Khombole.....																							
Tilunaka.....																							
Tivaouane.....																							
Sudan (French): Mahina.....																							

‡ Suspected.

§ For the week ended Oct. 9, 1937, 2 cases of yellow fever were reported in Jos, Nigeria.

¶ A dispatch dated June 4, 1937, from the United States legation in Asuncion, Paraguay, states that yellow fever has been officially reported in the northwestern part of Paraguay.

* Jungle type.

† For the week ended Oct. 9, 1937, 3 cases of yellow fever were reported in Gossas, Senegal.